

Driving along the coastline of Northern Kurzeme, you can see numerous pine trees rushing by the window, here and there mingled with some firs and birches. If you never step out of the car, you may have the impression that the coastal area consists only of pine woods, and you cannot even imagine the diversity of this area. The colours and variety come into the open, when you enter fishermen's villages - behind the houses you can see open dunes, grasslands and even the sea. Still, the best way to get acquainted with the coastal area is to walk by foot along the sea.



The outlet of River Vecročupe, Vaide village

## Coastline

The coast of Valgalciems-Kaltene delights your eyes with picturesque beaches, dotted with bigger and smaller boulders. They are telling the story of their past as well as of the development of the sea coast for the last 2–3 thousand years. The boulders break the waves and at the same time protect people's houses and gardens. At some places the lower shores are overgrown with rush and reed, reaching out far into the sea and creating coastal wetlands, and towards inland turn into the coastal meadows.



Hybrid Marram Grass x *Calammophila baltica* 



Sea pea *Lathyrus maritimus* 



Pebble beach in Ovīši



Sheep's-bit *Jasione montana* 



Stony bank in Kaltene

In Northern Kurzeme there are even seashores with running springs, and the coastline is naturally enforced by black alder. This phenomenon can be observed only in the area from Uši to Kolka. The shore of Ovīši is completely different – there the sea washes vast, up to 100 metres wide pebble beach. Round, oval and flat, grey, brown and reddish, the seasmoothed and washed pebbles are various and marvellous.

Sandy beaches are the most common in Northern Kurzeme. They are very inconstant: one year dry and sandy, the next – already wet and with coastal pools, yet another – with drift lines. Both terrestrial and water vegetation can find its place there.

At some coastal areas, for example, near Roja, Kolka and Vaide, washed-out coasts can be found. There the sea washes out about 0,5 – 2,5 metres of the dry land every year. Even the 200 hundred years old pine-trees that are covered with sand halfway up cannot protect the coast. Just the opposite processes are observed in the coastal area next to Mazirbe-Lūžņa, where the accumulation coast is forming. The terrestrial

areas have increased for 50 - 200 metres during the last 60 - 70 years. Wide foredunes are forming in these areas, in the course of time they turn into the grey dunes and later wooded dunes develop there.



Embryonic dunes in Kolka



Wet beach from Kolka to Uši



Dune grassland in Kolka

Although the biggest foredunes can be observed on the coast of the Baltic Sea, smaller foredunes can be found also on the coastline of the Gulf of Rīga. The wider the beach and foredunes, the bigger the natural barrier against the sea waves and winds. Nevertheless even the highest and oldest foredunes are powerless against fierce storms. For instance, during the winter storm of 2005, a great part of the 6 meters high foredune next to Irbe River was washed out.

One of the most beautiful adornments of coastland is the dry dune grasslands situated on the elevated conformations, for instance in Kaltene and Kolka. Special liveliness on the sea coast is created by outlets of rivers. They are very important as migration routes for fish, shelter for broadleaved vegetation and

plants and animals living there, and very often also as oases for travellers. Here you can get rest on a hot summer day, enjoying the cool shade and refreshing air.



Outlet of River Irbe

## "Vigas" and "kangari" – old interdune depressions and old wooded dunes

In Northern Kurzeme as nowhere else in the Europe you can hear the sea talking to us through millenniums everywhere, although you may be kilometres from the actual sea. Few people know that the dune earthworks and interdune depressions stretching parallel to the sea, or – as they are called in the ancient Liv language – "vigas" and "kangari", was the bottom of the sea some nine thousand years ago. They may seem extremely ancient from the point of view of history, but as to geology, they are quite recent. And maybe just because of this recently formed relief the nature of Northern Kurzeme is quite rough and its people – a bit secluded.



Interdune depression in Bažu Mire



Yellow Bird's-nest Monotropa hypopitis

What do you see, turning your back to the harsh winds of the sea, and crossing the white sand dunes to the forest? If strong winds were blowing on the coast, then here, behind the white dunes a pine forest is hidden with its fragrance of lichens, moss and pine needles. When the weather is wet, you can move through the wood almost noiselessly with your feet sinking deeply into the soft moss; in summer heat the dry lichen is breaking and crackling under your soles. This is the characteristic coastal forest – at the first glance uniform and boring – pines and pines alone and the ground is covered with endless carpets of moss and lichen. The crooked trunks, large branches and low stature testify that every day the coastal wood is forced to fight wind, sand, sometimes also fires and thoughtless deeds of men. Only thanks to the coastal woodlands many fishermen's villages are not buried under the sand, it is possible to grow crops and potatoes in the poor soil, shepherd cattle and for centuries protect our land from enemies.



Robber fly *Laphria gibbosa* 

The farther you go from the sea, the more bilberry and cowberry bushes you see. After a short walk the dry pine wood is replaced by growingly wetter interdune depressions (vigas) – humid dune slacks. At some places alders and willows grow in the depressions, some are overgrown with sedges, but the oldest have turned into real black alder swamps, which can be crossed with dry feet only in the hottest summer. Interdune depressions are often narrow but tens of kilometres long. Across the depression there comes the next wooded dune (kangars). If you stand on one dune, you can already see the next. Such complex of continuous dunes and interdune depressions, stretching parallel to the sea, reaches up to 10 kilometres inland. In some widest interdune depressions lakes have formed or, at some places, mires, the largest of which is Bažu Mire with it's 2646 ha. The major part of the mire is situated in

the strict nature reserve zone of Slītere National Park, so it is advisable to visit dunes and depressions with special nature trails.



Wooded dune with junipers



Lake Pēterezers



Carpet of lichens in pine wodland

## Kolkasrags - Kolka Horn

The farthermost northern point of the Kurzeme peninsula is Kolkasrags – Kolka Horn. Lots of people have experienced the unique possibility to stand with one foot in the "Small Sea", and with the other – in the "Large Sea". The etymology of the words *Kolkasrags* and *Kolka* is linked to the Baltic Finnish, and means "a sharp corner", "a nook".



Remains of old lighthouse at the Kolka Horn, year 2005



Complex of old wooded dunes and interdune depressions in Slītere National Park



After the storms of 2005

Often another explanation of this word is mentioned, coming from the ancient Liv language – "to die" and "death". The waters there are really dangerous. Lots of wrecked ships lie under there. Such graveyard of ships was created by a gently sloping about 7 kilometres long subaqueous sandbank, stretching into the sea from the horn towards the north-east. Every year about 500 thousand m³ of sand settle there. Since 1884, a lighthouse built on an artificial island warns seafarers about the danger. At the same time Kolka Horn suffers from shortage of sand. From 1890 to 1981 the coastline has retreated for 350 m. The coastline of Kolka is among the washed-out coasts of high risk.

## Protection

To preserve this unique, Europe-scale coastal complex, several special nature protection territories have been created, that are included also in the European network of nature protection Natura 2000. The terrestrial territory of Northern Kurzeme is closely connected with the sea, especially its shallow-water part. Both Irbe Strait and the western coast of the Gulf of Rīga are recognized as important bird areas in the Baltic Sea.

The protection of the coastal area is governed by the Law on Protected Belts of Republic of Latvia. According to this law, the protected belt of dunes is determined at least 300 m wide, in settlements – at least 150 m wide, including all the protected habitats, as well as sea protection belt (beach and sea) to the depth of 10 metres.

To preserve the last region on the coasts of the Baltic Sea and the Gulf of Rīga inhabited by Livs, a special protected area of the culture and history of Livs, "Līvod rānda" is created.



Sea Sandwort Honckenya peploides



Bar-tailed Godwit Limosa lapponica



Harebell, bluebell bellflower *Campanula rotundifolia* 



Written: Brigita Laime, Dace Sāmīte; Translated: Inguna Jansone; Revised: Vija Znotiņa; Maps: Mārtiņš Pētersons, Kārlis Kalviškis Photos: Brigita Laime, Didzis Tjarve, Uģis Piterāns, Indra Vaļeniece; Design: Aģentūra Munks; Issued: McĀbols.

EC LIFE – Nature Project "Protection and management of coastal habitats in Latvia" (LIFE2002NAT/LV/8498); http://piekraste.daba.lv/; website of Slītere National Park http://www.slitere.gov.lv/











